## ABSTRACT OF THE DISCLOSURE

Disclosed is a projection exposure apparatus including an illumination optical system for illuminating a pattern of a reticle with laser light outputted from a continuous emission laser, a projection optical system for projecting the illuminated pattern onto a wafer to be exposed, and an interferometer operable while using laser light outputted from the continuous emission laser. This structure enables use of the laser light outputted from the continuous emission laser, both for the exposure process and for the measurement. Thus, an interferometer can be incorporated into the exposure apparatus while avoiding bulkiness of the same.

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